

PHILIPS

Fortimo

LED

Fortimo LED Strip iXt 1ft
VHF FC HV7



Datasheet

Redefining brilliance with efficiency and innovation

Key features and benefits

- Two lumen output versions: 2000 lm/ft and 3000 lm/ft
- LED module efficiency of 185 Lm/W (4000K, CRI80)
- Robust LED package to withstand high temperatures
- Long life time of >100,000 hours
- High color rendering: CRI >80
- Excellent color consistency of 3 SDCM
- Variation of color temperatures: 3000 K, 4000 K, 5000 K, and 6500 K
- Two lengths: 1ft and 2ft
- Wide case temperature (Tc) range from -40 °C to +95 °C
- A 7 year warranty is granted when combined with an LED Driver from the Xitanium iXt range. Otherwise, the standard 5 year warranty applies

Application: Industry, Warehouse, Office, Marine

January 2026



Ordering data

Commercial product name	EOC	12NC	Box quantity
Fortimo LED Strip iXt 1ft VHF FC 830 HV7	8721103 122490 00	9290 040 10506	168
Fortimo LED Strip iXt 1ft VHF FC 840 HV7	8721103 122513 00	9290 040 10606	168
Fortimo LED Strip iXt 1ft VHF FC 850 HV7	8721103 122537 00	9290 040 10706	168
Fortimo LED Strip iXt 1ft VHF FC 865 HV7	8721103 122551 00	9290 040 10806	168

Drive currents

Parameter	Nominal*	Life**	Max***	Unit
Fortimo LED Strip iXt 1ft VHF FC HV7	411	600	720	mA

Module temperatures

Parameter	Nominal*	Life**	Max***	Unit
T _c (case temperature at T _c point)	55	90	95	°C

* Nominal value at which typical performance is specified

** Value at which life time is specified

*** Maximum value for safe operation, do not operate above this value





Optical characteristics

[Fortimo LED Strip iXt 1ft VHF FC 830 HV7](#)

[Fortimo LED Strip iXt 1ft VHF FC 840 HV7](#)

[Fortimo LED Strip iXt 1ft VHF FC 850 HV7](#)

[Fortimo LED Strip iXt 1ft VHF FC 865 HV7](#)

CCT	3000K	4000K	5000K	6500K	Unit
Luminous flux (Φ_{use})*	2895	3000	3000	2985	lm
Efficacy*	179	185	185	184	lm/W
Average Luminous flux (tolerance -2% + 7%)	2985	3062	3062	3046	lm
Average Efficacy	188	193	193	192	lm/W
Max. Color consistency	3	3	3	3	SDCM
Color coordinates (CIEx, CIEy)	0.432, 0.399	0.380, 0.375	0.348, 0.352	0.310, 0.323	
Min. CRI	80	80	80	80	
Min. R9	0	0	0	0	
Max. Photobiological safety	RG1 unlimited	RG1 unlimited	RG1 unlimited	RG1 unlimited	
Energy label EPREL	C 	C 	C 	C 	

Measurement precision for flux +/- 5%. Measurement precision for efficacy +/- 6%. Measurement precision for x, y +/- 0.005. Measurement precision for CRI 1.5. Measurement precision for Vf +/- 3%. Measurement precision for power +/- 3.3%.

* Luminous flux (Φ_{use}) and Efficacy refer to Single Lighting Regulation (SLR). Luminous flux (Φ_{use}) means the part of the luminous flux of a light source that is considered when determining its energy efficiency: - for non-directional light sources it is the total flux emitted in a solid angle of 4π sr (corresponding to a 360° sphere)

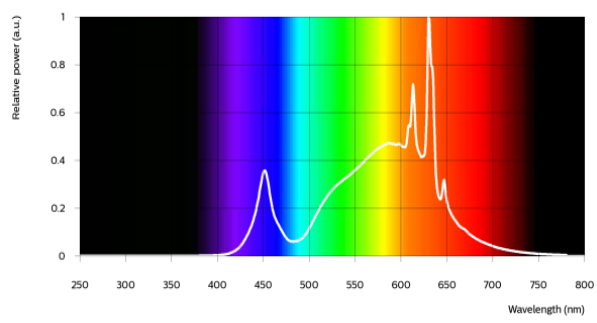
Tuning table

Operation Point		Current	3000K	4000K	5000K	6500K	Unit
T _c = 25°C	Luminous flux	80% I-nom 329mA	2410	2567	2567	2558	lm
		I-nom 411mA	2980	3178	3178	3169	lm
		I-max 720mA	5038	5393	5393	5385	lm
	Efficacy	80% I-nom 329mA	191	204	204	203	lm/W
		I-nom 411mA	187	200	200	199	lm/W
		I-max 720mA	173	185	185	184	lm/W
T _c = 55°C	Luminous flux	80% I-nom 329mA	2327	2475	2475	2459	lm
		I-nom 411mA	2985	3062	3062	3046	lm
		I-max 720mA	4862	5192	5192	5174	lm
	Efficacy	80% I-nom 329mA	186	200	200	198	lm/W
		I-nom 411mA	188	193	193	192	lm/W
		I-max 720mA	168	180	180	179	lm/W
T _c = 95°C	Luminous flux	80% I-nom 329mA	2199	2212	2212	2294	lm
		I-nom 411mA	2718	2735	2735	2842	lm
		I-max 720mA	4592	4617	4617	4822	lm
	Efficacy	80% I-nom 329mA	179	181	181	187	lm/W
		I-nom 411mA	174	176	176	183	lm/W
		I-max 720mA	161	162	162	169	lm/W

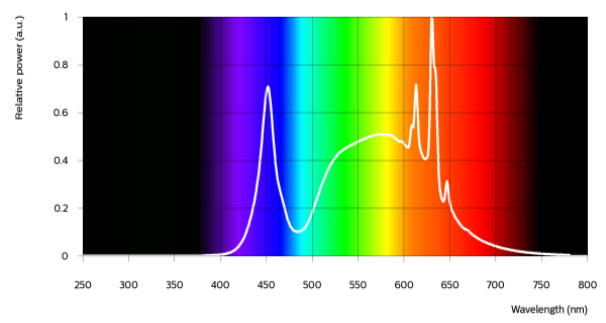
*Based on average value

Spectral characteristics

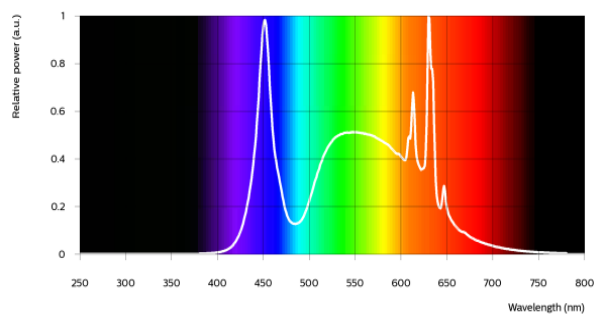
CRI80 3000K



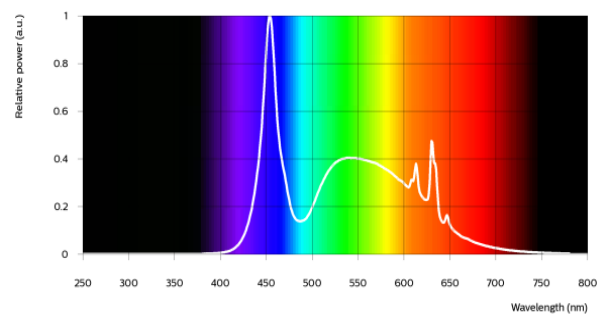
CRI80 4000K



CRI80 5000K



CRI80 6500K



Electrical characteristics

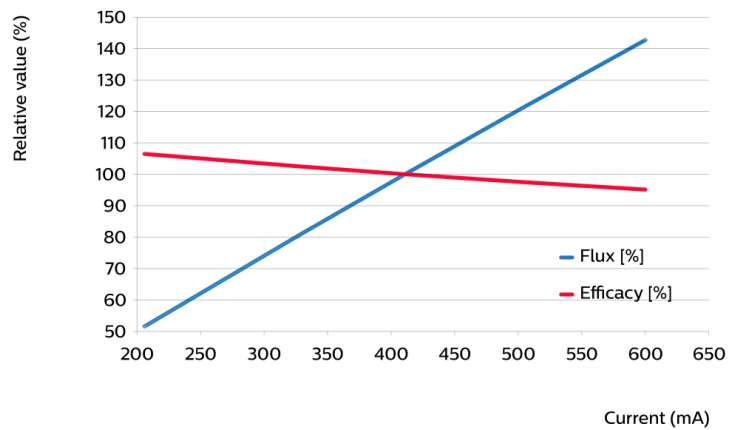
Parameter	Min	Typ	Max	Unit
Forward voltage	37.3	39.5	40.2	V
Power consumption	15.3	16.2	16.5	W = kWh/1000h
Number of modules in series per chain			8	
Number of modules in parallel			2	

Measurement precision for Vf +/- 3%. Measurement precision for power +/- 3.3%

Tuning information

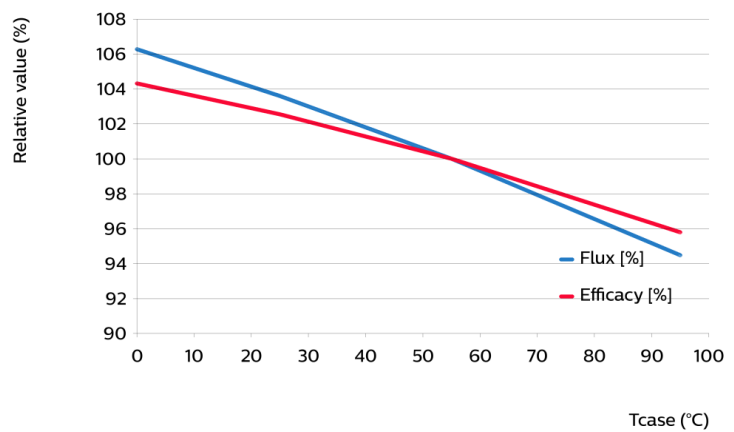
Flux and efficacy versus current (at Tc nominal)

I [mA]	Flux [%]	Efficacy [%]
600	143	95
505	121	97
411	100	100
329	81	102
206	52	106



Flux and efficacy versus temperature at Tc (at I nominal)

Tc [°C]	Flux [%]	Efficacy [%]
95	94	96
55	100	100
25	104	103
0	106	104



Lumen maintenance

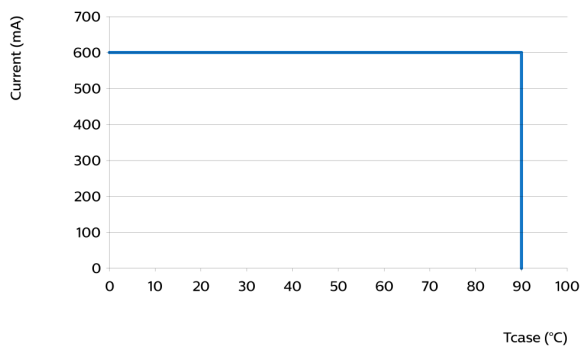
Operation point	Lumen maintenance x 1000 hours	L70			L80			L90		
		B50	B20	B10	B50	B20	B10	B50	B20	B10
80% Inom= 328,8 mA	Tc=25°C	>100	>100	>100	>100	>100	>100	>100	>100	>100
	Tc_nom=55°C	>100	>100	>100	>100	>100	>100	78	76	75
	Tc_life=90°C	>100	73	55	>100	73	55	55	53	52
Inom=411 mA	Tc=25°C	>100	>100	>100	>100	>100	>100	>100	>100	>100
	Tc_nom=55°C	>100	>100	>100	>100	>100	>100	76	74	73
	Tc_life=90°C	>100	73	55	>100	73	55	54	52	50
Ilife=600 mA	Tc=25°C	>100	>100	>100	>100	>100	>100	>100	97	96
	Tc_nom=55°C	>100	>100	>100	>100	>100	>100	70	69	68
	Tc_life=90°C	>100	73	55	>100	73	55	50	48	47

We use a Philips designed lifetime model, which uses LM80 data as only one of its inputs, and assumes a continues operation of the module. Please check design-in guide for more information on industry conditions.

Lifetime

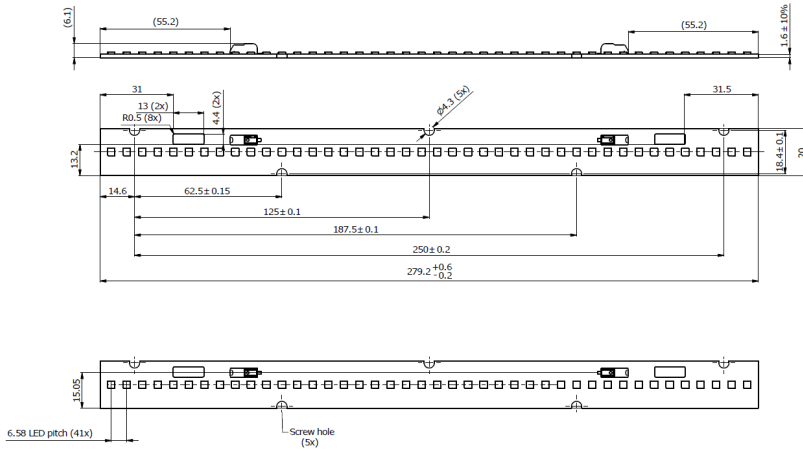
Parameter	Value	Unit
M70F50 nominal	>100000	hours
M70F50 life	>100000	hours

Performance Window



Mechanical characteristics

Parameter	Min	Typ	Max	Unit
Length	279	279.2	279.8	mm
Width	19.8	20	20.2	mm
Height PCB	1.4	1.6	1.8	mm
Height total		6.1		mm
Product mass		18		gram



Absolute ratings

Parameter	Min	Max	Unit
Current through the LED module (I-max)		720	mA
Case temperature (Tc-max)		95	°C
ESD (direct contact)	8		kV
Working voltage		350	V _{dc}

Application information

Certificates and Standards

CB
ENEC
ENEC+
CE

Application

Dimming

Yes



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